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ARTIFICIAL
SOFT PASTE PORCELAIN
By EDWIN ATLEE BARBER





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ARTIFICIAL SOFT PASTE PORCELAIN

By EDWIN ATLEE BARBER, A. M., PH. D.

Tin Enamelled Pottery

Salt Glazed Stoneware

Artificial Soft Paste Porcelain



In the Louvre, Paris.

o

PATE TENDRE VASE (11 inches in height).
Relief Flowers and Painted Figure Scenes.
Vincennes, France, 1753.



ART PRIMER

PENNSYLVANIA MUSEUM AND SCHOOL
OF INDUSTRIAL ART, PHILADELPHIA

ARTIFICIAL SOFT PASTE PORCELAIN

FRANCE, ITALY, SPAIN

AND

ENGLAND

BY

EDWIN ATLEE BARBER, A. M., PH. D.

CURATOR



NEW YORK
DOUBLEDAY, PAGE & COMPANY
1907

Fine Arts:

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4375

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PREFATORY NOTE.

The *Art Primers* of the Pennsylvania Museum and School of Industrial Art are designed to furnish, for the use of collectors, historical and art students and artisans, the most reliable information, based on the latest discoveries relating to the various industrial arts. Each monograph, complete in itself, contains a historical sketch, review of processes, description of characteristic examples of the best productions, and all available data that will help to facilitate the identification of specimens. In other words, these booklets are intended to serve as authoritative and permanent reference works on the various subjects treated. The illustrations employed, unless otherwise stated, are reproductions of examples in the Pennsylvania Museum collections.

In reviewing the branches of ceramics, the geographical arrangement used by other writers has given place to the natural or technical classification, to permit the grouping together of similar wares of all countries and times, whereby pottery, or opaque ware, is classified according to *glaze*, its most distinctive feature, and porcelain, or translucent ware, is grouped according to *body*, or *paste*.

Soft porcelain may be divided into two groups:

- a. Artificial soft paste (containing various compositions, as in the fritted porcelain of Sèvres and the other early French manufactories).
- b. Natural soft paste (containing china clays as a basis, usually combined with calcined bone, as in English porcelain).

In preparing the material for *Artificial Soft Paste Porcelain*, the author has consulted the most recent and reliable authorities on the subject, but he is particularly indebted, for many of the facts presented, to *A History and Description of French Porcelain*, by E. S. Auscher; *English Porcelain*, by William Burton; *Old English Porcelain*, by M. L. Solon; *Catalogue of the Collection of Worcester Porcelain in the Royal Porcelain Works' Museum*, by R. W. Binns, F. S. A. *The Soft Porcelain of Sèvres, With an Historical Introduction*, by Edouard Garnier (London, 1892), and *Histoire des Manufactures Françaises de Porcelaine*, by the Count de Chavagnac and the Marquis de Grolhier.

The author desires to record his sense of deep obligation to M. Taxile Doat, the eminent ceramist and artist of Sèvres, for valuable information relating to the early porcelain of Sèvres. Through his kind offices the illustrations of some of the best pieces of old Vincennes and Sèvres *pâte tendre* in the French museums have been procured for this work.

E. A. B.

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**ARTIFICIAL SOFT PASTE, OR FRIT PORCELAIN
(PÂTE TENDRE).**

ARTIFICIAL SOFT PASTE, OR FRIT PORCELAIN (PÂTE TENDRE).

Artificial Soft Paste, or Frit Porcelain, is commonly known as French porcelain (*porcelaine Française*) because it was first produced in France, and continued to be manufactured in that country for a longer period than elsewhere. Soft porcelain is so called, not because of the lack of hardness of the paste, although it fuses at a much lower temperature than hard, or kaolinic porcelain, but because of the softness of the glaze, which can readily be scratched with pointed steel. The ware is the result of the efforts of European potters, in the seventeenth and eighteenth centuries, to reproduce the highly prized hard porcelain of China.

Frit porcelain is a glass-like substance forming a connecting link between true porcelain and glass. This artificial body is an alkaline paste, in which the ordinary china clays do not enter. It is composed of siliceous sand, alum, sea salt, soda, nitre and gypsum, fritted together, to which is added a small portion of calcareous marle, and is covered with a rich lead glaze. The ware, as made at different factories, may vary in the relative proportions of the ingredients used, but the resultant products of all present the same marked features.

CHARACTERISTICS.

Artificial Soft Paste Porcelain is a thoroughly vitrified substance of a creamy or ivory white tint, with a waxy surface. When held before a strong artificial light, it almost invariably shows, when not too thick, pyrophaneous or mechanical defects, in the form of translucent discs, known as "pin points" or "grease spots," caused by vitreous particles in the paste and imperfect blending of the ingredients. They vary in size from that of a pin's point to the diameter of a small pea. So characteristic are these translucid spots, in size and distribution, that they frequently furnish the only means of identifying the products of certain factories to those who have made a special study of them. In hard paste porcelain they are seldom found, except in the earlier wares of Meissen. The colours used in the decoration of frit

porcelain are usually incorporated with the glaze, presenting a soft and pleasing effect. On account of the difficulties encountered in firing and the great expense of production, very large pieces were not produced in this body.

Artificial Soft Paste Porcelain may be divided into three groups, as follows:

- I. FRIT PORCELAIN OF FRANCE.
- II. FRIT PORCELAIN OF OTHER CONTINENTAL COUNTRIES.
- III. FRIT PORCELAIN OF ENGLAND.

I. FRIT PORCELAIN OF FRANCE.

ROUEN.

Pâte tendre, or soft paste porcelain, was first produced at Rouen about the year 1673, the composition having been discovered by Louis Poterat, a potter of that place. The decorations in blue were in the style of those used on the stanniferous (tin enamelled) faience of that period. The paste is of a lighter tint than that of other French soft paste, excepting that of Sèvres, and is considerably less amber coloured than the ware of St. Cloud. The glaze is less vitreous and of a pale greenish tint. The blue colour of the decorations is darker and grayer and more intense than that of the other old French factories. The paintings have evidently been applied on the raw glaze, like those on the stanniferous (tin enamelled) faience of Rouen. Pieces of this porcelain are rare, the most characteristic forms being flower pots, cups and salt cellars, which are mainly decorated in blue and occasionally in other colours. A few pieces are known with blue, red and green decorations.

ST. CLOUD.

Fritted porcelain was first attempted here about 1696 by the Chicanneau family, and the manufacture continued until about the year 1773. The paste is yellowish, with a greenish tinge, or of a deep ivory tint and fine and regular grain. The glaze is clear and brilliant and seldom blistered. Sometimes dry patches are noticeable on the flat parts, and the glaze often shows a tendency to run in streaks. On the bottoms of cups, saucers and plates it often presents the appearance of sweating.



Nos. '98-108, '04-51.

1, 2. FRIT PASTE SAUCER AND CUPS.
Decorated in Dark Blue.
St. Cloud, France, 1722-1762.



No. '06-431.

3. FRIT PASTE CUP (4½ inches in height).
Kakiyemon Decoration; Tin Glaze.
Chantilly, France, about 1740.



No. '06-2

4. FRIT PASTE PLATE (9½ inches).
Polychrome Decoration and Gold.
Chantilly, France, about 1760.

The decorations are usually in dark blue, under the glaze, but occasionally in other colours, such as red, yellow, green, purple and dark brown. The most common ornaments are sprays of flowers in relief and paintings in imitation of old Rouen faience or Chinese porcelain.

A marked feature of St. Cloud porcelain is the moulded fluting of cups and jugs. Most characteristic is the vertical inner rim on the upper side of saucers (*trembleuse*), intended to hold the cup in place and to prevent it from slipping. The paste is usually quite thick and the glaze frequently contains numerous black specks.

The earliest mark on St. Cloud porcelain (1702-1715) is the representation of the sun, having reference to Louis XIV. and his motto, *Nec pluribus impar*. A later mark consists of the letters "S. C." above the initial "T." (St. Cloud, Trou), used when the factory was under the management of Henry Trou, who succeeded Chicanneau. These were first impressed and later painted in blue. In the group of St. Cloud pieces shown here (Nos. 1 and 2) the cup and saucer have the second mark in blue, beneath which is an additional letter, P. These were produced between 1722 and 1762. The odd cup at the right bears the sun mark, in blue.

LILLE.

The soft paste porcelain made here from about 1711 was a close imitation of that of St. Cloud, and it is difficult, with our present limited knowledge of the former, to distinguish the one from the other, in the absence of marks. The paste of the Lille ware is supposed to be thicker and the glaze less perfect. The mark is a monogram composed of the initials of François Boussemaert, a director of the factory, used with or without the name of the town. The letter D (for Dorez, the founder of the works), and the initial of the town, L, are marks also attributed to Lille.

CHANTILLY.

At Chantilly frit porcelain was made from 1725 to 1789, or later, the factory having been founded in the first-named year by Cirou. At first tin was used to render the glaze white and opaque. One style of decoration extensively used here was that known as the Kakiyemon, so called after the famous Japanese potter who originated a distinct style of decoration on Imari ware in the province of Hizen. This decoration consists of sprays of flowers and small groups of birds

and symbolical motives scattered sparingly over the surface, in blue, red, yellow, and brown. Dinner services, tea sets and statuettes were ornamented in this manner.

At a later period transparent glaze was used and the Chinese styles were extensively imitated. Still more recently the designs and colours of Sèvres porcelain were copied. This paste is of a deep ivory tint, like that of Mennecy and St. Cloud, a favourite style of decoration being sprays of flowers and "wheat head" sprigs, also used at Arras, in dark blue. A plate of this character, in the Museum collection, is marked with the letter S, in blue.

In the Museum collection is a tall cup-shaped vase, without the cover, painted in the Kakiyemon style in red, yellow and blue, and marked with a huntsman's horn in red (No. 3). The glaze, which contains tin, is white and opaque. A later style is represented in the collection by a plate of yellow paste and transparent glaze, with medallions containing paintings of birds in polychrome on blue and gold checkered ground. The central design illustrates one of La Fontaine's fables, the Jay dressed in the plumes of the Peacock. In this piece the "grease spots" are distinctly visible, but are not so pronounced or numerous as in the Mennecy and Tournay paste. It bears a similar mark in blue (No. 4).

MENNECY-VILLEROY.

Under the patronage of the Duke of Villeroy, a frit porcelain factory was established at Mennecy about 1735. The paste is of an ivory or amber colour with a heavy waxy glaze, quite different in appearance from the wares of other factories, though approaching in tint most nearly to St. Cloud porcelain. The glaze, particularly where it has accumulated in crevices, frequently has a distinct greenish tint. The porcelain of China was at one period extensively imitated here, while the Sèvres styles were also copied to a considerable extent. Polychrome decorations were employed, but in place of gilding, blue, yellow and rose were often used for narrow bands and outlines of decoration. Among the articles produced were vases, flower pots, figures, groups and various pieces of table services. In the Bloomfield Moore collection of the Museum is a group of silver-mounted snuff-boxes of Mennecy soft paste. In some of these the heavy glaze is of a pale, but pronounced green colour. We show here three snuff-boxes of this manufacture,



No. '99-979, '82-1063, '99-1026.

- 5, 6, 7. FRIT PASTE SNUFF BOXES (3 inches in length).
Polychrome Decorations.
Mennecy, France, 1735-1766.
Bloomfield Moore Collection.



In the Sèvres Museum.

8. PÂTE TENDRE COMPOTIER (9½ inches).
View of Chateau of Vincennes.
Vincennes, France, about 1750.

representing a girl, a boy, and a dog dressed in a blanket (Nos. 5, 6, and 7). Other examples in the collection are modelled in the forms of a dog, mouse, goat, and pair of fishes.

Larger pieces were decorated with sprays of flowers and Chinese figures, in enamel colours. A knife handle so ornamented is exhibited in the Museum collection. The factory was operated by Jacques and Jullien from 1766 until 1774, when it was closed.

The mark most frequently used at Mennecy is composed of the letters D. V. (De Villeroy), at first painted in colour and later scratched in the paste.

Mennecy porcelain may be readily distinguished by its deep amber colour and its luscious glaze, which in the thicker parts is of a pronounced greenish tint.

VINCENNES.

Pâte tendre porcelain was first produced at this place between the years 1740 and 1745. The ware is characterised by a white paste with beautiful clear glaze and simple decorations. The porcelain of Vincennes reached the highest state of perfection between 1753 and 1756, during the period when it was a Royal manufactory. In the latter year the works were moved to Sèvres. Jean Hellot, Director of the *Académie des Sciences*, was selected to superintend the preparation of the paste, the colours and the firing, while Duplessis, the court jeweller, was appointed to design and execute the forms, and Bachelier supervised the painting and gilding. Among the most characteristic things produced here were figure groups, small vases with relief ornaments, porcelain flowers and bouquets, coloured closely after nature, which at one time were manufactured in considerable abundance.

During the three years when the title of *Manufacture Royale de la Porcelaine de France* was used, the ware was marked with the royal cipher, two interlacing L's (the cipher of Louis XV.), combined with a date letter, as A, for 1753; B, for 1754; and C, for 1755. After the removal of the factory to Sèvres, this method of dating was continued, until the alphabet was exhausted, when, in 1778, the letters were doubled, and so continued to be used until the year 1793, indicated by PP. These letters are usually, but not invariably, capitals, and are either within the monogram or placed one at each side, or both at one side.

There are in the National Museum at Washington several dinner plates and dishes of Vincennes soft paste which at one time belonged to General Washington. They bear the mark of two interlacing L's in blue, and possess the characteristic hole in the sides of the base rims (see under *Sèvres*). The ware is rather thick, but of a beautiful ivory white tint. Around the rims is a narrow, scalloped gold edging, sometimes known as "doutil" (French *dentelle*, lace), a lace-like or indented border, frequently found on both the soft and hard paste porcelain of that period, which is the only decoration.

In the Musée de Sèvres is a deep dish, or *compotier*, of Vincennes *pâte tendre*. The ground is creamy white, on which is a central painting representing the chateau of Vincennes. The mark, two interlacing L's, with three dots, one in the centre, one above and one beneath, indicates the period of about 1750 (see No. 8).

A footed vase in the same museum is a beautiful and most characteristic example of Vincennes *pâte tendre*. The ground is white, on which are scattered small paintings of flowers and insects. The handles are modelled to represent twisted twigs or branches, which terminate in roses and carnations, coloured after nature. This piece belongs to the same period as the preceding (see No. 9).

The Musée du Louvre possesses a vase of somewhat similar style but more elaborate workmanship, decorated at the sides with modelled carnations and other flowers painted in natural colours. On each face is a panel enclosing a figure scene depicting dancers in a park, in the style of Watteau. The ground is a mottled lapis-lazuli blue heightened with gold. The edge of the mouth is embellished with gadroons in white and gold on a blue ground. While the central paintings are not signed, the remainder of the decoration is known to be the work of Taillandier. In the Louvre catalogue the period of this piece is given as about 1745, but M. Taxile Doat, the eminent ceramic artist of Sèvres, fixes the exact date, according to the revised chronological table of the Count de Chavagnac, as 1753 (see Frontispiece). The mark is composed of two foliated, intertwining L's surmounted by a fleur-de-lys in blue under the glaze.

SÈVRES.

The manufacture of artificial soft paste porcelain was transferred from Vincennes to Sèvres in 1756, where it continued to be made until



In the Serres Museum.

9. PÂTE TENDRE VASE (11 inches in height).
Flowers in Relief.
Vincennes, France, about 1750.



Nos. 97-856, 856.

10, 11. PÂTE TENDRE TEAPOT, CUP AND SAUCER (Teapot 5 inches in height).
Decorated in Colours and Gold.
Sèvres, France, 1780.



Collection of the Count de Charvagne.

12, 13, 14. PÂTE TENDRE VASES AND WATER JUG.
Sèvres, France, Eighteenth Century.

about 1800. In 1769 the manufacture of hard paste porcelain was introduced at Sèvres, and for the next thirty years or so both hard and soft paste were made at the same time.

The soft paste porcelain* of Sèvres is whiter, of a finer texture, and frequently thinner than that of other factories, although some of the earlier pieces are heavy and thick. In pieces belonging to tea sets or table services, there are often dry places in the glaze where it does not entirely cover the body, often presenting the appearance of sweating. The imperfection of the glaze may occur on the sides, but it is particularly noticeable on the bases. In the best pieces, however, these defects are not found. The phenomenon of "mooning," that is, the presence of translucent discs in the paste, is usually quite pronounced.

On account of a royal edict, at one period (from 1766 to 1784) gold was not permitted to be used on any French porcelain excepting that of the Sèvres factory. On the products of other establishments, during this period, no gilding is found. The ware made at Sèvres, however, is almost invariably gilded, and the finer pieces are elaborately decorated with gold bands, tracteries, and burnished patterns.

Previous to 1753, before the removal of the factory to Sèvres, Hellot introduced the beautiful rose-Pompadour colour. Edouard Garnier, at one time conservator of the museum at Sèvres, states in his work entitled "*The Soft Porcelain of Sèvres*" (London, 1892), that no example decorated with this ground colour is known bearing a date later than 1761. More recent investigations show this statement to be erroneous, since the same deep rose colour was employed throughout both the Louis XV. and Louis XVI. periods on soft paste, and to some extent, after 1769, on hard paste. Previous to 1764, the date of the Marquise de Pompadour's death, this colour was known as rose-Pompadour. During the brief reign of the Comtesse du Barry at the court of Louis XV. (1768-1774), the same ground colour received the appellation of rose du Barry, and since 1774, after the accession

* According to M. Garnier, the soft paste of Sèvres was composed of Fontainebleau sand, nitre, sea-salt, soda, alum, and gypsum, mixed together and baked. This frit was then pulverised and combined with Argenteuil clay in the proportion of three parts of frit to one part of clay. The glaze consisted of Fontainebleau sand, litharge, silica and potash, fritted together, then reduced to powder and mixed with water, forming a bath which was poured over the biscuit ware, which was then subjected to a second firing.

of Louis XVI., it has been called simply *jond rose*, or rose ground. Pieces of *pâte tendre* decorated with this colour are exceedingly rare, and no examples are to be found in the Louvre or the Sèvres museum. A superb covered vase in the collection of Mlle. de Grandjean, of Paris, is elaborately painted, gilded, and perforated. The exquisite colour, combining with the glaze of the soft paste, presents the effect of great depth and richness. On hard paste the rose colour is lacking in depth and transparency and does not become incorporated with the glaze. We know of no *genuine* examples of the *jond rose pâte tendre* porcelain of Vincennes or Sèvres in any public museum in this country. Heliot also, about 1752, discovered the exquisite "bleu turquoise." The famous "*bleu de Sèvres*" of this period has never since been equalled in the purity and depth of its rich, dark tone. The vases decorated with these ground colours are the highest achievements of this factory. In 1782 the new well-known cornflower decoration (*decor barbeau*) was first introduced at Sèvres. This pattern consisted of small blue and green flowerets, and was afterwards extensively copied on both hard and soft paste porcelain at many other potteries in France, England, and the United States.

In 1778 or 1779 the jewelled porcelain was first made, in which coloured raised enamels, applied over gold leaf, in close imitation of rubies, turquoise, sapphires, pearls, and other gems, were used with brilliant effect. Vases, plates, cups and saucers, and other pieces thus decorated, presented the appearance of being inlaid with precious stones, *en cabochon* (uncut), set in gold on richly coloured grounds. The principal enameller was Cotteau. Jewelled *pâte tendre* porcelain is now exceedingly rare. There are but three pieces in the Sèvres Museum, and only a cup and saucer in the Louvre, from which, as in all genuine old pieces, many of the pearls are missing. This disappearance of the jewels has been caused by the practice of applying the enamel over paillons of gold to give it greater brilliancy, so that the imitation gems were easily detached. The forgeries of jewelled ware, not being enamelled over gold foil, usually retain the enamels, which adhere perfectly to the body, although in occasional instances they may be lacking.

On many pieces of Sèvres *pâte tendre* will be found a small hole which has been drilled in one side of the foot rims of cups, saucers, and plates, by which they were hung in the muffle kiln while being fired. This practice seems to have been almost entirely confined



Nos. '82-1636, '82-1404.

15. PÂTE TENDRE PLATE (9½ inches).
By Sophie Chanou, in Blue and Gold.
Sèvres, France, about 1780.
Bloomfield Moore Collection.

16. PÂTE TENDRE PLATE (9½ inches).
Decorated in Polychrome.
Sèvres, France, about 1780.
Bloomfield Moore Collection.



No. '82-1370.

17. PÂTE TENDRE CUP AND SAUCER.
Showing the Holes for Suspension in the Kiln.
Sèvres, France, 1774.
Bloomfield Moore Collection.

to Vincennes and Sèvres. Of many examples of Sèvres table ware in the Museum collection, only one cup and saucer are without this characteristic mark (see No. 17).

When Brongniart assumed the management of the Sèvres factory, in 1800, a large stock of soft porcelain still remained on hand, and, in order to raise funds to pay the workmen, whose wages were far in arrears, and to meet the running expenses of the factory, he disposed of this ware at low prices. Falling into the hands of unscrupulous dealers, it was decorated and falsely marked and dispersed among museums and collections as veritable Sèvres porcelain. This semi-fraudulent ware, however, may be distinguished by two infallible tests: First, by the presence of chrome green in the decorations, which colour was not discovered until a later date (1804). It is of a yellowish tone, very different from the darker copper green previously used. Secondly, the gilding of the old soft paste is dull, having been burnished "*au clou*" (with an iron nail), instead of with the agate burnisher, which has been used since about 1800. The gilding of the soft paste is distinctly scratched, the lines being sharp and well defined.

The soft paste porcelain of Sèvres has been extensively counterfeited in hard paste, clumsy imitations of the rose-Pompadour and turquoise blue ground colours being the most numerous. A favourite style of the counterfeiters is the painting of cupids and garlands of flowers in rich colours in conjunction with gold traceries on solid blue ground, with the gold monogram of Louis Philippe. These reproductions, however, are such glaring frauds that they should deceive no one, since the texture of the overglaze colours is so coarse, opaque, and rough that it bears little resemblance to the smooth, translucent, liquid quality of the delicate soft paste inglaze colours. In nearly every American art museum will be found modern reproductions of soft or hard paste porcelain of Vincennes or Sèvres; some of them, however, are so beautifully executed as readily to deceive every one but the trained expert. Some of the best of the *pâte tendre* imitations were produced by Bettignies (see illustration No. 25).

The manufacture of soft paste porcelain was revived under Napoleon III. from 1852 to 1870. The marks used during this period were the Imperial Eagle framed by the letter S, on the left, and the last two figures of the year on the right, above the letter T (1852-1854), and the initial N with S. 54, above the letter T (1854-1870), in red over the glaze. From 1887 to 1900 soft paste was again produced at

Sèvres, but this product is more glossy and glistening than the old *pâte tendre* (previous to 1800), to which the term *Vieux Sèvres* was applied.

The Museum possesses numerous good examples of old Sèvres soft paste, among which are mug-shaped cups with deep saucers embellished with sprays and bouquets of flowers in natural colours (Nos. 10 and 17). A pair of plates painted by Sophie Chanou, in blue and gold, and a plate with floral sprigs in colours, are excellent examples of table ware (Nos. 15 and 16). A tea pot bearing the date mark for the year 1769 is also here shown (No. 11).

A statuette of *pâte tendre* porcelain, in the Sèvres Museum, represents "The Escaped Bird." This fine example is painted in polychrome and bears the date mark for the year 1770, in pale blue (see No. 18). Soft paste figures and groups ceased to be made at Sèvres about 1777.

In the collection of the Louvre may be seen a cheese dish belonging to the famous table service of Madame du Barry. Around the upper part are festoons and vases of flowers painted on a blue ground, beneath which is the du Barry monogram, the D being traced in gold and the B painted in minute flowerets. It bears the date mark of 1771 and the cipher of the decorator, Catrice (see No. 19). Other pieces of the same service are in the Sèvres Museum.

Among the treasures of the Musée de Sèvres is a beautiful tureen, or *soupière*, of *pâte tendre* porcelain, with broad borders of gold ornaments on a white ground, and garlands painted in colours in scroll-like reserves. The cover is surmounted by a modelled artichoke. This piece bears the date 1773, and is the combined work of several artists, the painting being by Barre, the gold ornaments by Baudouin, and the garlands by Le Bel, jeune (see No. 20).

Theoretically, the exact date of Sèvres porcelain can be determined by the letters which were used in conjunction with the mark of the interlacing L's. All pieces marked with this cipher, without an accompanying date letter, are supposed to have been produced at Vincennes previous to 1753. This system of dating, however, cannot always be relied upon, as we find the intertwining L mark without any date letters on many pieces which belong to a period later than 1753. The decorators were not always careful to add the letter of the year to the mark, in consequence of which numerous pieces are attributed to



In the Sèvres Museum.

18. PÂTE TENDRE STATUETTE (8½ inches in height).
 "The Escaped Bird."
 Sèvres, France, 1770.



In the Louvre, Paris.

19. PÂTE TENDRE CHEESE DISH (12 inches in length).
 From the Service of Madame du Barry.
 Sèvres, France, 1771.

Vincennes which were really produced at Sèvres some years later than the mark would indicate. Such pieces can only be correctly attributed by an intelligent interpretation of the peculiarities of paste, decoration, and mechanical treatment. The date letters, however, when they appear on genuine pieces, may, as a rule, be considered trustworthy (see chapter on Marks).

The Sèvres marks were usually accompanied by the private devices or emblems of the decorators. These additional initials or characters are frequently a sure guide to the detection of counterfeits, as the forgers of early Sèvres porcelain did not acquaint themselves with the significance of these marks. For instance, a piece of soft paste porcelain, supposed to be of Sèvres manufacture, with a pastoral scene beautifully painted, and enamelled jewel work, bears the date letter of the year 1758, beneath which are two musical notes, the private mark of Chulot. When it is known that this artist painted only groups of flowers, etc., his mark, appearing in conjunction with a figure group, is shown to be a forgery. Moreover, since the jewelled decoration was not invented at Sèvres until about 1779, the mark of 1758 is manifestly fraudulent (see No. 25). It is not deemed advisable to reproduce here the numerous private marks of painters, which will be found in the works mentioned in the Prefatory Note.

The distinguishing characteristics of Sèvres *pâte tendre* porcelain are the white or pale ivory tint of the paste, its excellent potting, its careful modelling and beautiful painting, the use of gold in the decorations, the frequent presence of sweating, or dry spots in the glaze, the richness of its ground colours, particularly the "*bleu de roi*," turquoise blue, and rose-Pompadour, the drilled holes in the base of the plates, cups, and saucers, for suspension in the kiln, the absence of chrome green in the decorations, and the burnishing of the gilding "*au clou*." The jewelled porcelain of about 1780 may be recognised by its brilliancy and the invariable absence of some of its enamels.

The modern reproductions of the old soft porcelain are distinguished by a whiter and more glittering and harder-looking paste. To detect forgeries of Vincennes and Sèvres porcelain (and fully nine-tenths of the pieces offered for sale will be found to be spurious), the collector should carefully examine the paste, the glaze, the style of decoration, the gilding, and the marks. If he is not familiar with every feature and peculiarity of the ware, and the tricks resorted to by the counterfeiter, he will stand little chance of securing genuine pieces, for no

porcelain has ever been copied so extensively as that of the Vincennes and Sèvres factories.

TOURNAY.

The manufacture of soft paste porcelain was commenced here about 1750, and was continued until recent years. The paste is not so white as that of Sèvres, but lighter than the products of Chantilly, Mennecy and St. Cloud. The best work produced here was frequently decorated in the Sèvres styles, frequently with paintings of exotic birds in enamel colours and Sèvres blue borders. On these will generally be found a tiny gold mark representing a potter's kiln. In the Museum collection may be seen a plate of this character bearing a central design of birds in enamel colours and a border of Sèvres blue which has been painted on the biscuit in rough uneven strokes of the brush, presenting a beautiful combination of shades of this colour (No. 22). The commoner variety was thick and heavy in body, and consequently almost opaque. It is generally found in table pieces, such as plates, cups, saucers, etc., and is usually decorated with sprays and garlands in blue. The mark most commonly used consists of two crossed swords and four small crosses, pencilled on the finer pieces either in gold or overglaze colours. A plate in the Museum collection, with blue decorations, bears this mark in blue beneath the glaze (see No. 21).

Tournay porcelain was made by fritting together sand and carbonate of soda, to which was added clay marl and chalk, resulting in a body apparently more porous than that of Mennecy, Chantilly, or Sèvres. Some of the best pieces were finely executed, among the decorative colours being an iron red and a purplish rose.

Later, the Tournay porcelain showed the influence of Sèvres, both in forms and decoration, in its ground colours and gilding.

Tournay paste when held up to a strong light has a distinctly greenish tint. The best ware is slightly lighter in colour than the common variety. In this paste the "grease spots" are abundant.

ORLEANS.

From 1753 until 1770 soft paste porcelain was produced at Orleans. Its characteristics are a vitreous and translucent body and brilliant glaze. Table services were made to some extent and a limited number of statuettes.



In the Sevres Museum.

20. PÂTE TENDRE TUREEN (13 inches in length).
Plateau (18 inches in length).
Sèvres, France, 1773.



No. '04-47.

21. FRIT PASTE PLATE (9 inches).
Decoration in Blue.
Tournay, France, about 1760.



No. 56-2.

22. FRIT PASTE PLATE (9½ inches).
Enamel Colours, Blue and Gold Border.
Tournay, France, about 1755.



Nos. 04-49, 570.

23, 24. FRIT PASTE PLATE, CUP AND SAUCER.
Decorations in Blue.
Arras, France, 1782-1786.

SCEAUX.

The attempt to produce soft paste porcelain here was made about 1763, by Jacques and Jullien, but it was not until 1775 that it began to be manufactured, under the patronage of the Duke of Penthièvre, to any extent. In 1784, after the removal of the royal edict, colours and gilding were freely employed, the decorations being in the style of the Mennecy porcelain, and often of a superior quality. The mark, which is found on a small proportion of the Sceaux pieces consists of the letters S. X., scratched in the paste.

BOURG-LA-REINE.

Jacques and Jullien established a soft paste manufactory at Bourg-la-Reine, near Sceaux, about 1774, after they gave up the factory at Mennecy. The ware strongly resembles that of the latter place. On almost every piece will be found lines of rose colour painted around the edges. The manufacture was continued until about 1789. The mark consists of the letters B. R., incised in the paste.

ARRAS.

In 1782 *pâte tendre* porcelain was being produced here. In colour it is less yellow than the ware of St. Cloud, but of a deeper tint than that of Tournay. While the manufacture is said to have continued for only five or six years, a considerable quantity of ware must have been produced, as many pieces appear in public collections. A plate in the Alfred Duane Pell collection of this Museum is marked "A. R." in underglaze blue (No. 23). Arras soft paste porcelain usually contains more of the translucent "grease spots" than that of other factories. In the examples we have examined they appear numerous throughout the paste, varying from the size of a pin hole to the diameter of an ordinary lead pencil. In the illustration (No. 24) of a cup and saucer of Arras manufacture the "pin holes," or "grease spots," are distinctly shown. The most prominent manufacturers of this place were two women named Deleneur.

SAINT-AMAND-LES-EAUX.

One Bettignies manufactured frit paste porcelain at Saint-Amand-les-Eaux early in the nineteenth century, commencing about 1815, where the best reproductions of old Sèvres *pâte tendre* were produced,

even some of the finest vases being closely copied. Pieces emanating from this factory are such exact imitations of the original ware that they can only be distinguished by the shapes, or certain peculiarities of the decoration. We have seen very clever counterfeits of the jewelled porcelain produced at Sèvres about 1780. The marks of the Sèvres factory are forged, and even the drilled hole for suspension in the kiln has been carefully imitated. The paste is apparently identical with the old Sèvres paste of the period. The simulation of rubies, turquoise, and pearls, around the marly, is particularly effective, and the painted figure scenes are fully equal in artistic merit to the best work of the Sèvres artists. A plate of this character (see No. 25), to which reference has already been made (see p. 15), bears the Sèvres chronogram for the year 1758, an unfortunate anachronism of the manufacturer, since jewelled porcelain was not invented at Sèvres until twenty years later. This plate is reproduced here for the reason that it will convey a better idea of the exquisite jewelled work produced at Sèvres than any genuine piece in public museums of which the writer has any knowledge, with the exception of a cup and saucer dated 1781, in the Louvre, which is thickly studded with raised enamels closely imitating rubies, emeralds, and white pearls, on dark blue ground, the jewels being so admirably managed as to present the appearance of being mounted in delicately wrought gold settings.

PARIS.

We have already stated that an attempt was lately made at Sèvres to revive the manufacture of *pâte tendre* porcelain, but the experiments proved unsatisfactory. Camille Naudot, Fils et Cie, of Paris, have succeeded in producing a soft paste porcelain in recent years. Their exhibit at the Paris Exposition of 1900 attracted much attention by the originality of the work. The decoration consists of floral, rice grain, and geometrical designs, cut through the thin paste and filled in with tinted glazes, in the style of the Persian pottery of the eighteenth century, a method of ornamentation which had been attempted by the Worcester factory as early as 1873, and by the Havilands of Limoges a few years later. An exquisite little bowl, five inches in diameter, in the Museum collection, is jewelled with a perforated floral pattern in which the leaves are filled in with a pale, transparent green,



Wadsworth Atheneum, Hartford, Ct.

25. PÂTE TENDRE PLATE (9 inches).
Jewelled and Painted Decoration.
Imitation of Sèvres work of about 1770.
By Bettignies, Saint-Amand-les-Eaux, 1815-1840.



No. VI-45.

26. SOFT PASTE BOWL (5 inches in diam.).
Pierced Decoration filled with coloured Glazes.
By Camille Naudot, Fils et Cie, Paris, 1900.



Nos. '04-224, 71.

FRIT PASTE CUPS AND SAUCERS.
Blue and Gold Decorations.
27. Doccia, Italy. 28. Venice, Italy.



Trumbull-Prime Collection, Princeton, N. J.

29. FRIT PASTE TUREEN (10 inches in height).
Decorated in Colours and Gold.
Buen Retiro, Spain, about 1765.

and the flowers with golden amber glaze (No. 26). The stems are represented by pencilled gold lines. The paste is of glistening and dazzling whiteness, and admirably suited to this style of embellishment, but it bears little resemblance to the soft, mellow, waxy porcelain of the Louis XV. and Louis XVI. periods, and is lacking in the "grease spots" so characteristic of the early French fritted paste.

II. FRIT PORCELAIN OF OTHER CONTINENTAL COUNTRIES.

ITALY.

The production of artificial porcelain of a hybrid nature was attempted in Italy as early as the sixteenth century. As no specimens of these products have been identified, however, it is not possible to describe the ware, but it is believed that it partook more of the character of glass than of porcelain. At a later period the soft paste porcelain of the early French factories was imitated at several places in Italy, although, in some instances, the manufacture was probably the result of independent discovery.

VENICE.

Experiments were made here in the manufacture of soft paste at a remote period, some writers fixing the date as early as 1519. About 1720, a true frit body was being produced. Previous to 1735, the Vezzi brothers established a factory at Venice and revived the manufacture of soft paste porcelain. In 1765, Geminiano Cozzi founded another factory, which was operated more or less successfully until 1812. The ware of this period was of soft paste, somewhat resembling in appearance the early frit porcelain of Worcester, rather thin in substance, and of a glassy nature. The principal mark was an anchor in red, blue, and gold. A mug-shaped cup and saucer in the Museum collection, of a pronounced grayish white paste and glassy glaze, decorated in dull, dark blue and inferior gilding, bears this mark in rose colour, beneath the glaze (No. 28). In the Boston Museum of Fine Arts are numerous pieces of this fabric decorated in polychrome, and bearing the anchor mark in red.

DOCCIA.

The Marquis Ginori established a porcelain factory at this place about 1737 for the production of soft paste porcelain, and at a later period hard paste ware was made. In 1821, at the closing of the Capo-di-Monte works, the moulds of the latter were transferred to Doccia, and from that time to the present, the Capo-di-Monte patterns have been cleverly imitated in hard paste, even to the marks. Here, also, the early Italian maiolicas have been extensively copied. The principal mark of the earlier Doccia soft paste is a six-rayed star, painted in red, blue, or gold. A cup and saucer in the collection of the Museum, of grayish-white paste, is embellished with gold sprigs and blue enamelled borders. The mark is a six-pointed star in blue, beneath the glaze (No. 27).

CAPO-DI-MONTE.

At Capo-di-Monte, near Naples, porcelain works were established by Charles III. of Spain, about 1743. The early ware was soft paste of fine quality, the most characteristic variety being decorated with relief designs representing sea shells, marine and mythological subjects, richly coloured, the flesh tints being stippled in the style of miniature painting. The principal mark was a crowned N., in blue, and some writers attribute the fleur-de-lys mark to this factory, which was afterwards used at Buen Retiro.

Vast quantities of hard paste porcelain, in close imitation of Capo-di-Monte soft paste, are made at Doccia, Meissen, and Herend in Hungary, but the most dangerous counterfeits are produced in Paris. Genuine examples are now seldom offered for sale.

LE NOVE.

Pasquale Antonibon founded a factory at Le Nove, near Bassano, about 1752, for the production of maiolica and terra cotta, and the manufacture of hard paste and artificial soft paste porcelain continued from about 1762 to near the close of the century. Some beautiful *pâte tendre* vases and jardinières, bearing the Nove mark, still survive. The principal mark is a six-pointed star, in red or gold, occasionally having an undulating tail.

SPAIN.

BUEN RETIRO.

Charles III., on his accession to the throne of Spain in 1759, took with him to Buen Retiro, near Madrid, a colony of potters from Capodi-Monte, and founded a porcelain factory there. The ware was principally in the Capodi-Monte style, although the jasper ware of Wedgwood was also imitated. Later, hard paste porcelain was made there, and the manufacture continued into the nineteenth century. A cup and saucer in the Museum collection are thin and well-potted. They are painted with figure scenes in delicate colours, and gold borders. The paste is mellow and waxy, like the early ware of Chelsea.

In the Trumbull-Prime collection of Princeton University is a fine tureen of soft paste painted in colours (see No. 29), and marked with a fleur-de-lys in blue.

III. FRIT PORCELAIN OF ENGLAND.

BOW.

A porcelain factory was established at Stratford-le-Bow previous to the middle of the eighteenth century, some authors claiming that it dates back as far as 1730. A patent was granted to Edward Heylin and Thomas Frye in the year 1745, for the manufacture of porcelain from a variety of clay called unaker, procured from America. From this patent we quote the following, as given by Mr. Llewellynn Jewitt in his *Ceramic Art in Great Britain*:

"The material is an earth, the produce of the Chirokee nation in America, called by the natives 'unaker,' the property of which are as follows, videlicet, to be very fixed, strongly resisting fire and menstrua, is extremely white, tenacious, and glittering with mica. The manner of manufacturing the said material is as follows:—Take unaker, and by washing separate the sand and mica from it, which is of no use; take pott ash, fern ash, pearl ash, kelp, or any other vegetable lixiviall salt, one part of sands, flints, pebbles, or any other stones of the vitrifying kind; one other part of these two principles form a glass in the usual manner of making glass, which when formed reduce to an impalpable powder. Then mix to one part of this powder two parts of the washed unaker, let them be well worked together until intimately mixed for one sort of ware; but you may vary

the proportions of the unaker and the glass; videlicet, for some parts of porcelain you may use one half unaker and the other half glass, and so in different proportions, till you come to four unaker and one glass."

The early porcelain of Bow would appear from the above specifications to be a glassy porcelain somewhat similar to that produced in the earlier years of the Chelsea works, but that can hardly be called a true frit porcelain which contains a varying proportion of the unaker or clay. Pieces are known, however, dating back to about 1750, which possess many of the characteristics of the early Chelsea frit paste.

Bow porcelain was seldom marked, but occasionally pieces are found bearing the anchor and sword mark, and the monogram of Thomas Frye, who retired from the works in 1759.

Mr. William Burton, author of *History and Description of English Porcelain*, has kindly examined for me the earlier pieces of Bow porcelain in the British Museum, and he has discovered that none of them reveals the presence of translucent spots which are so distinct in the earlier Chelsea productions.

The paste of the early Bow pieces is coarser than that of Chelsea, has a soft, rich appearance, and the thickly applied glaze possesses a yellowish or creamy white tint; the majority of pieces we have examined are poorly potted, and the under sides are often rough and badly finished.

Characteristics: A glassy glaze of creamy white, thickly applied. Absence of "grease spots" in the paste. Poor potting and indifferent finish.

CHELSEA.

The earliest true frit paste porcelain of English manufacture was probably produced at Chelsea, and several examples of the "goat and bee" pattern bearing the date of 1745 are known. These pieces were for many years attributed by collectors to the Bow factory, but recently several have come to light which in addition to the triangle mark have the name "Chelsea" scratched in the paste. It would therefore appear that porcelain of fine quality was produced here in the year above mentioned, and it is highly probable that the factory had then been in existence for several years. Mr. M. L. Solon, in his *Brief History of Old English Porcelain*, states that Charles Gouyn was the first head of the Chelsea concern. In 1749 Nicholas Sprimont became director of the works.



No. 96-230.

30. FRIT PASTE "GOAT AND BEE" JUG.
(4½ inches in height).
Polychrome Decoration.
Chelsea, England, about 1745.



Pell Collection, Metropolitan Museum, New York.

31. FRIT PASTE VASE (12 inches in height).
Decorated in Colours, Chinese Style.
Chelsea, England, about 1760.

The porcelain produced at Chelsea from this time until about 1760 was almost identical in body and glaze with that of St. Cloud, and some authorities claim that the Chelsea ware of that period was made by French workmen. Be this as it may, the body of the early Chelsea factory shows the same peculiarity as that of the old French glassy porcelain, and exhibits in a marked degree the "mooning" or presence of small translucent spots, which are more or less characteristic of all frit paste. Attention to this phenomenon in Chelsea porcelain was first drawn by Dr. W. H. Diamond. At a later date this same peculiarity was observed in the old French porcelains, and the writer has found it in the earlier porcelain of Worcester. Mr. William Burton, in his *History and Description of English Porcelain* (page 38), states that "It has been suggested that these are due to irregular and excessive aggregation of the vitreous frit which formed such a large proportion of the paste. This is undoubtedly true, but the reason for their existence is that the Chelsea body was extremely liable to go out of shape, and, in endeavouring to correct this fault, the Chelsea potters hit on the plan of keeping some of the frit fairly coarse, instead of grinding it all to an impalpable powder—a most workmanlike method of dealing with such a difficult problem as the firing of a glassy porcelain."

As previously mentioned, the well-known "goat and bee" creamer, which for a long time was supposed to have emanated from the Bow works, was among the earliest known designs from the Chelsea factory. In the Museum collection is a fine example of this pattern, decorated in enamel colours, marked on the base with an incised triangle, which is now known to have been used at Chelsea (No. 30). A similar example in the British Museum bears this same mark, together with the name Chelsea and the date 1745.

During this first period, but as a somewhat later date, Chinese and Japanese decorations were imitated. The Kakiyemon style (see Chantilly) was practised by the Chelsea factory to a considerable extent, and at first gold was rarely, if ever, used in the decoration. A peculiar shade of blue, known as *gros-bleu*, or mazarine blue, was introduced about 1756. Mr. Burton describes this blue colour as "not only of beautiful tone, being blue and not black in the deepest parts, and of a fine sapphire tint in the lighter parts, but as it was obtained by painting the mineral pigment on the biscuit ware and then covering it with glaze, the colour is always agreeably broken and uneven, and possesses in consequence a quality which the more

technically perfect mazarine blue grounds of later factories sadly lack."

A beautiful vase, of hexagonal form, in the Rev. Alfred Duane Pell collection of the Metropolitan Museum, New York, is painted in colours, in the Chinese style (No. 31). The *jong-hoang*, or Chinese phoenix, figures among the subjects depicted. The anchor mark in red is pencilled on the inner rim of the orifice, beneath the lid of the vase. A companion piece is owned by Mr. Pell.

Toward 1760 the frit body was gradually replaced by a new paste, known as a bone body, which was more manageable, and could therefore be produced at less expense. In 1770 the records of the factory show that ten bags of bone ash from London cost three shillings. Prof. A. H. Church states that ninety per cent. of the pieces of Chelsea porcelain now known are composed of the later body, and consequently only about ten per cent. of existing pieces are of the earlier frit body.

During the first period, while the glassy porcelain was being manufactured, toys, ornaments, scent-bottles, figures and groups were produced and continued to be made until the close of the factory. There is a very interesting group of these trinkets in the Museum collection (see Nos. 34, 35, and 36), the first of which belongs to the earlier period, but as it is often impossible to distinguish those of the first from those of the later period, because the white body is almost entirely covered with colour, the exact date of the two other pieces is uncertain. In the weekly statements of "Work Don at Chelsea by Barton, Boyer, &c.," in 1770, published by Jewitt in his *Ceramic Art in Great Britain* (Vol. 1, p. 182), the item "Pidgeon House Perfume Pots" occurs more than once (see No. 36). These dainty little scent-bottles frequently bear a French inscription, and the hollowed out bases are usually covered with paintings of flowers and gold work. Candlesticks, candelabra, and clocks, surrounded with metal branches, were set with small porcelain figures and flowers coloured after nature.

In 1770 the works were transferred to William Duesbury, manager of the Derby works.

The principal factory mark used at Chelsea was an anchor, at first raised in the paste, and later traced in red, purple, brown, or gold. On some of the earlier pieces is found a triangle incised in the paste. The mark is frequently found on the backs of figures, or in a fold of the drapery.

Characteristics: Chelsea frit paste porcelain is readily distinguished



Nos. '91-31, '05-222.

32. SOFT PASTE CUP AND SAUCER.
Painted Decoration in Blue.
Worcester, England, about 1760.

33. SOFT PASTE CUP AND SAUCER.
Painted Decoration in Rose.
Chelsea-Derby, about 1770.



Nos. '83-1070, 1135, '99-1009.

34, 35, 36. SOFT PASTE SCENT BOTTLES (3½ inches in height).
Decorated in Colours.
Chelsea, England, about 1760.
Bloomfield Moore Collection.

by the mellow, waxy quality of the body, and its heavy, unctuous glaze. The "mooning," or presence of translucent "grease spots," is usually very pronounced. The earlier pieces are devoid of gilding, while polychrome decorations, sparingly applied, are painted for the greater part in enamel colours. On the bases of the larger groups and figures are three or four smudges, known as "thumb marks." The figures are sharp and have been carefully retouched, while the colouring has been applied in the most painstaking manner. This carefulness of execution is particularly apparent in the faces of statuettes, where the flesh tints are stippled and delicately shaded into the white.

DERBY.

At Derby, porcelain was first produced about the year 1756 under the management of William Duesbury. It seems certain that artificial soft paste porcelain, similar to that of Chelsea and Bow, was produced here in the early years of the factory, but the pieces that have been recognised as belonging to this period are so entirely covered with opaque colours that the exact character of the ware cannot be determined. At a later date, soapstone was introduced, and about 1770 bone ash appears to have been added to the body.

Duesbury continued to operate the Chelsea works, in connection with the Derby factory, from about 1770 to 1784, when the buildings of the former were torn down and Chelsea china ceased to be made. This was known as the Derby-Chelsea or Chelsea-Derby period.

After Duesbury took over the Chelsea works in 1770, the manufacture was continued both at Chelsea and Derby, and it is difficult to distinguish the products of the two factories, since many of the forms and decorations were produced at both places. The mark of this period consisted of the Derby D, combined with the Chelsea anchor, usually pencilled in gold. A saucer in the Museum collection, so marked, is decorated with sprays of flowers in green enamel and black (No. 38). A cup and saucer, with similar mark, are painted with cupids in deep rose colour. The paste strongly resembles the early frit paste of Chelsea, and exhibits, to a marked degree, the phenomenon of "mooning," myriads of transparent "pin points" being distinctly visible when the ware is viewed through a strong artificial light (see No. 33). About 1770 the paste was changed by the introduction of bone in the composition, and the later productions gradually took on the character of natural soft paste or bone porcelain.

Several Chelsea-Derby figures may be seen in the Boston Museum of Fine Arts.

LONGTON HALL.

Frit paste porcelain was produced here by William Littler from about 1752 to 1758. The body of the ware varied considerably, being sometimes of a true frit composition and in other cases being quite opaque. The glaze is generally lighter in tint than the glazes of the early porcelains of Chelsea and Bow. Much of the ware attributed to this factory bears a close resemblance to the porcelain of Chelsea. As a rule, the pieces are clumsy and poorly potted, but underglaze blue colour was employed extensively as a ground work in decoration, somewhat similar to that of the Chelsea works. Gold was sparingly used, sometimes presenting the appearance of gold leaf heavily applied.

WORCESTER.

Shortly after the establishment of the Worcester factory, in 1751, a frit porcelain body was invented by Dr. John Wall, the founder, which was extensively produced until sometime between 1760 and 1770, when steatite was introduced. This ware he named "Tonquin porcelain." It is somewhat similar to the frit body used at Chelsea and Sèvres, of a translucent, waxy quality, which may be best seen in the base rims of tea cups. At first the decorations were in blue, in imitation of Chinese porcelain, and, later, the ware was painted in enamel colours, in the Oriental style. The powdered blue and salmon scale blue ground of the square mark period are among the best achievements of the Worcester decorators.

A marked characteristic of the ware of the first period is the presence of tiny translucent spots in the paste, which are not so numerous nor so large as those found in the Chelsea frit paste porcelain, or in the old French *pâte tendre*. The ware is usually thin and evenly turned, and the glaze is so perfect in its composition that crazed pieces are seldom found. A cup and saucer, here shown, bearing the square mark, imitating Chinese characters, belongs to this period. They are decorated with floral panels in *gros bleu*, and flowers in red, green, and gold (No. 40). Another cup and saucer, of a somewhat later date, are embellished with enamel colours and gold and underglaze blue bands (No. 39).



Wadsworth Athenaeum, Hartford, Ct.

37. FRIT PASTE VASE (9 inches in height).
Decorated in Blue, Chinese Style.
Worcester, England, about 1755.



Nos. '04-580, 80.

38. SOFT PASTE SAUCER.
Green Enamel and Black.
Chelsea-Derby, about 1770.

39. SOFT PASTE CUP AND SAUCER.
Enamel Colours and Gold, and Blue Bands.
Worcester, England, about 1770.

In the collection of the Wadsworth Athenæum of Hartford, Ct., is a tall vase of fritted porcelain, with painting in Chinese style in dark blue (No. 37), belonging to the earliest period.

New body compositions were invented at Worcester at various times, and the changes in the paste, produced by the introduction of soapstone, bone dust, and china clays, were so gradual that it is impossible to decide just when the manufacture of one ended and the next one began. At least three distinct bodies were used, first the frit, second the soapstone, and finally the bone body, when bone ashes and Cornish clays were introduced and the ware took on the character of the natural soft paste porcelain of the other English factories. The production of the glassy porcelain continued, however, for some time after the steatite body was introduced, and the manufacture of the latter did not cease until some years after the bone china had appeared. Each of these varieties of ware possesses marked features by which it may be readily recognised. The later productions of the Worcester factory and the other English establishments will be treated in the *Art Primer on Natural Soft Paste Porcelain*.

The principal marks employed at Worcester, on frit paste porcelain, are a cursive W, the crossed swords, the Chinese square mark, already mentioned (see Nos. 32 and 40), and the crescent taken from one of the quarterings in the Warmstry arms,* either outlined in blue or painted in solid colour. Much of the ware, however, is unmarked.

Characteristics: Worcester porcelain may be recognised by the hardness of the glaze, produced by the introduction of a certain percentage of ground Oriental china. It is usually of a more greenish tint than that of Chelsea or Bow.

CAUGHLEY.

While some writers claim that a pottery was established at this place in Shropshire (Salop) as early as 1751, we have no evidence that porcelain was made here before about 1772, when Thomas Turner became connected with the works. The ware produced at first was somewhat similar to that of the Worcester factory of the same period, when the frit paste was being superseded by the soapstone body. The decorations were usually printed in blue beneath the glaze, in the Worcester style. A cup and saucer in the Museum collection (No. 42)

* The first operations were commenced in an old mansion formerly occupied by the Warmstry family.

is thus decorated in the Chinese taste and reheightened with gold. These pieces are marked in blue beneath the glaze, in simulation of a Chinese character, representing the figure "1" (see chapter on Marks). Disguised numerals, from 1 to 8, with Chinese-like flourishes, were used to a considerable extent. Present authorities assign them to Caughley.

Additional marks of this factory are a crescent in blue, the letter C, for "Caughley," a painted or printed "S," probably the initial letter of "Salopian," and the latter word impressed in the paste. An open crescent in blue, with one horn longer than the other, was employed occasionally at Caughley. A cup in the Museum collection with blue printed design and dark blue marginal band with superimposed gilding (see No. 41) is so marked.

The majority of pieces of early Caughley porcelain we have examined are of a pronounced grayish or dirty white colour, of a putty-like opacity, quite different in tone from the greenish tint of the Worcester frit porcelain. This peculiarity marks all of the pieces referred to above. The later ware, however, more closely resembles in appearance the Worcester porcelain of the soapstone variety. A spirally fluted cup and saucer in the Museum collection, painted in blue and gold, which might readily be taken for Worcester, is marked with the letter "S" in underglaze blue.

THE UNITED STATES.

The fritted body was never produced by American potters, for the reason that when porcelain was first made in this country, at the commencement of the nineteenth century, the manufacture of artificial soft paste had long been abandoned in Europe. It is true that the projectors, Gousse Bonnin and George Anthony Morris, of the first American china factory, at Southwark, Philadelphia, advertised in the year 1769 that "they have proved to a certainty that the clays of America are productive of as good Porcelain as any heretofore manufactured at the famous factory in Bow, near London, and imported into the colonies and plantations, which they will engage to sell upon very reasonable terms; and as they purpose going largely into this manufacture as soon as the works are completed, they request those persons who choose to favour them with commands, to be as early as possible, laying it down as a fixed principle to take all orders in rotation, and execute the earliest first." At that date the porcelain made at Bow



No. '06-224.

40. FRIT PASTE CUP AND SAUCER.
Polychrome Decoration, Chinese Style.
Worcester, England, about 1760.



Nos. '08-19, '04-568.

41, 42. SOFT PASTE CUPS AND SAUCER.
Blue Printed Decorations and Gold.
Caughley, England, about 1772.

contained bone and china clays, so that if the American manufacturers had succeeded in imitating the Bow ware, the new manufacture would have been a natural soft paste porcelain and not a fritted body. At a subsequent date they advertised for bones; but the attempt appears to have been unsuccessful, and there is no evidence that porcelain was ever produced there. The only fully authenticated piece of china from these works is exhibited in the Museum collection of American pottery. It is a small openwork fruit dish, of cream coloured ware, decorated in blue beneath the glaze. This factory was permanently closed in 1774. A full account of this early American enterprise will be found in the author's work on the *Pottery and Porcelain of the United States*.

MARKS

ON ARTIFICIAL SOFT PASTE PORCELAIN.

No attempt is here made to present a complete list of marks found on artificial soft paste porcelain. Only those which are most frequently met with are given, since the greater proportion of the marks figured by different authors are seldom, if ever, met with outside of public museums.

It should be remembered that the marks reproduced here are only those found on the class of ware treated in this Primer, and are not intended to cover the entire products of any particular factory. Thus, for instance, those of the Sèvres factory here shown are only such as are found on *pâte tendre* porcelain of the eighteenth century. Other marks of this factory must be looked for in the Art Primer on **HARD PASTE PORCELAIN**.

Heretofore ceramic writers have differed somewhat in their chronology of the Sèvres factory, as some authors omit the chronogram represented by the letter "J." This is particularly true of the French writers, but recently the table of date letters has been corrected by the Count de Chavagnac and the Marquis de Grollier in their *Histoire des Manufactures Françaises de Porcelaine*, and each of the letters "I" and "J" is assigned a separate year. The table of year marks here given is, therefore, correct, and supersedes all others previously published.

FRANCE.



ST. CLOUD. Sun mark, the royal emblem of Louis XIV. At first incised, later in blue. On a cup in the Museum collection, pencilled in blue.



ST. CLOUD. Variation of the same mark.



ST. CLOUD. Mark in blue, beneath the glaze. The T stands for Henry Trou, at one period manager of the factory.



ST. CLOUD. Same mark with addition of the initial of the decorator. On a cup and saucer in the Museum collection, pencilled in blue.



CHANTILLY. A huntsman's horn in red or blue. On a tall cup in the Museum collection, pencilled in red. Also on a plate in blue, with letter R beneath.



MENNECY. The initials of the Duke De Villeroy, incised, or in rose or blue. On a cup and saucer in the collection of Rev. Alfred Duane Pell.



TOURNAY. Crossed swords and stars in underglaze blue, or in gold or carmine overglaze, after 1755. On a plate in the Museum collection, in blue. A kiln mark in gold was used on the best ware previous to 1755.



BOURG-LA-REINE. Incised in the paste.



ARRAS. Initials of the name in blue underglaze.



ARRAS. Same mark with initial of decorator. On a plate in the Museum collection, in blue.

VINCENNES AND SÈVRES.



VINCENNES. The royal cipher of Louis XV., two L's intertwined, used in a desultory way prior to 1753, in blue or gold.



VINCENNES. A variation of the same mark.



VINCENNES. The mark for the year 1753, the letter being changed each year.



VINCENNES. The mark for 1754. The mark of the decorator was placed beneath or above the factory mark, or occasionally in the centre. The fleur-de-lis was the mark of Taillandier, painter of bouquets and flowers, 1753-1790.



SÈVRES. The mark for 1756, the year in which the manufacture was transferred from Vincennes, when the use of the royal cipher became compulsory.



SÈVRES. All the letters of the alphabet (excepting W) having been used, in 1778 the double letters were commenced, which system of dating was continued until 1793, when the letters PP were used.



SÈVRES. From December 1852 to December 1854, under Napoleon III. the imperial eagle with date, with letters T (for *tendre*) were pencilled in red on *pâte tendre* porcelain, which had been revived.



SÈVRES. From December 1854 until 1870, the same mark, with the substitution of the crown for the eagle, was pencilled in red on *pâte tendre*.

TABLE.

CHRONOGRAMS USED AT VINCENNES AND SÈVRES.

A	1753	V	1774
B	1754	X	1775
C	1755	Y	1776
D	1756	Z	1777
E	1757	AA	1778
F	1758	BB	1779
G	1759	CC	1780
H	1760	DD	1781
I	1761	EE	1782
J	1762	FF	1783
K	1763	GG	1784
L	1764	HH	1785
M	1765	II	1786
N	1766	JJ	1787
O	1767	KK	1788
P	1768	LL	1789
Q	1769	MM	1790
R	1770	NN	1791
S	1771	OO	1792
T	1772	PP	1793
U	1773		

ITALY AND SPAIN.



VENICE. An anchor, pencilled in red, rose, blue or gold. Cozzi period, from about 1765 to 1812. On a cup and saucer in the Museum collection, in rose.



VENICE. A variation of the same mark.



DOCCIA. A star, from Ginori arms, in blue or gold. Occasionally in red. On a cup and saucer in the Museum collection, in blue.



DOCCIA. A five-pointed star, in blue or gold, on fine pieces.



DOCCIA. A six-pointed star, or double triangle, in gold on fine pieces.



CAPO-DI-MONTE. The fleur-de-lys, usually in blue.



CAPO-DI-MONTE. A crown surmounting the letter N (for Naples), in blue beneath the glaze.



NOVE. A tailed star, or comet, usually in blue.



NOVE. A star, with varying number of points, in blue.



BUEN RETIRO. A fleur-de-lys in blue, beneath the glaze.



BUEN RETIRO. A variation of the same mark.

ENGLAND.



Bow. The anchor and sword mark combined. Usually in brown or red on statuettes, groups and other pieces.



CHELSEA. Triangle mark, incised, sometimes accompanied by the word Chelsea and occasionally by a date (1745). The triangle alone is on a "goat and bee" creamer in the Museum collection.



CHELSEA. At first embossed, later in red, brown, blue or gold, often found in the drapery of figures or on the stands.



DERBY. Usually in red.



CHELSEA-DERBY. Combined mark of the two factories, usually in gold or red. On a cup and saucer in the Museum collection.



LONGTON HALL. Two L's crossed, the initials of Longton and Littler.



CAUGHLEY OR SALOPIAN. Crescent in blue.



CAUGHLEY OR SALOPIAN. Usually in blue.



CAUGHLEY. Disguised numeral, simulating Chinese characters. On a cup and saucer, in blue underglaze, in the Museum collection.



CAUGHLEY. Another disguised numeral mark.



WORCESTER. The crescent, one of the earliest marks, in blue beneath the glaze.



WORCESTER. Another form, in outline.



WORCESTER. Crescent mark with human profile, rare. On a cup and saucer in the collection of Rev. Alfred Duane Pell.



WORCESTER. Square marks, in Chinese style, in underglaze blue, usually found on early pieces decorated in blue. Copied from old Nankin china.



WORCESTER. One of the early marks, in blue.



WORCESTER. A variation of the above.



WORCESTER. Another form of the same mark.



WORCESTER. Crossed swords mark, frequently with the numbers 9 and 91. The significance of these figures is not known even at the factory. These marks are frequently found in underglaze blue on early pieces. On several pieces in the Museum collection.

RECAPITULATION OF PRINCIPAL

COUNTRIES.	BODY.	GLAZE.	DECORATION.
FRANCE.			
Rouen	Lighter in colour than other French wares excepting Sèvres.	Pale greenish tint..	Dark grayish blue, painted on the raw glaze, in the style of Rouen stanniferous faience. Some pieces were decorated in red, blue and green.
St. Cloud.....	Yellowish tint with greenish cast, and fine grain.	Clear and brilliant. Tendency to run in streaks, or "sweat."	Dark blue, painted on the biscuit under the glaze. Occasionally red, green, purple, yellow and dark brown were used. At first in Rouen, or Chinese styles. Also ornamented in relief.
Chantilly.....	Yellowish tint.	At first white and opaque, having a certain per cent. of tin. Later transparent lead glaze.	Kakiyemon (Japanese) style. Designs and colours at a later date in Chinese and Sèvres styles. Still later the coloured grounds of Sèvres were imitated.
Meannecy.....	Deep ivory or amber colour.	Heavy, of greenish tint.	Polychrome, in imitation of Chinese and Sèvres. Blue, yellow and rose lines in place of gilding.
Vincennes	White or pale cream colour.	(See Sèvres.)	(See Sèvres.)
Sèvres	White or pale cream colour. Fine texture and well potted.	Regular. Occasionally dry patches in table pieces.	Polychrome colours, heavy gilding. Beautiful ground colours, incorporated with the glaze. Exquisitely painted by skilled artists. Raised paste in imitation of jewels.
Tournay	Darker than that of Sèvres but lighter than other French porcelains. Greenish tint when held to the light.	Good glaze.	Polychrome, in imitation of Chinese and Dresden wares. Later in Sèvres styles. The earlier common variety in blue.
Arras	Deeper colour than that of Tournay.	Good glaze.	Dark blue, in sprays of flowers, etc.
ITALY.			
Venice	Later wares resembling Worcester.	.....	Blue and gold, and polychrome.
Doccia.....	Resembling French soft paste.	.....	Blue and gold, etc.
Capo-di-Monte.	.....	.....	Relief designs of Marine and Mythological subjects, richly coloured. Also in flat painting.
SPAIN.			
Buen Retiro ...	Resembling Capo-di-Monte.	.....	Painted or in coloured reliefs.
ENGLAND.			
Bow	Resembling Chelsea	Rich and glassy, of yellowish tint.	.....
Chelsea	Waxy and mellow.	Rich and heavy, of yellowish tint.	In colours, at first without gilding. Later gilded.
Derby	Similar to Chelsea.	.....	In colours, at first without gilding. Later gilded.
Longton Hall...	Poorly potted.	Lighter in colour than Chelsea.	In colours. Gold sparingly used.
Worcester.....	Resembling Chelsea, but greener.	Less waxy than that of Chelsea, and harder.	At first in blue. Later painted in colours or printed, in Chinese style.
Caughley.....	Similar to Worcester, but of a dirty white tint.	.....	Usually printed in blue, in Chinese style.

FEATURES OF FRIT PORCELAIN

SHAPES.	OTHER CHARACTERISTICS.	MARKS.
Flower pots, cups, jugs and salt cellars.	.....	Rarely marked.
Jugs, cups and saucers, flower pots, statuettes, knife handles, etc. Cups and jugs frequently fluted. Saucers often possess an inner rim.	Saucers usually with raised inner rim.	Impressed. Later in blue under the glaze.
Dishes, jugs, figures, etc.	"Grease spots" few.	In red or blue.
Flower pots, figures, table pieces, snuff boxes, knife handles, vases, etc. (See Sèvres.)	..... .....	Painted in enamel colour, later scratched in the paste. (See Sèvres.)
Vases, figures, table services and an infinity of articles.	Drilled holes in the bases of cups, plates and saucers. Burnishing of the gilding with an iron nail. "Grease spots" not so pronounced as in other French wares.	Over glaze and underglaze in gold, blue and red.
Pieces for table use, plates, jugs, etc.	"Grease spots" abundant.	In blue under the glaze. In gold or over glaze colours.
Plates, cups and saucers, etc.	"Grease spots" more pronounced than in other French wares.	In blue under the glaze.
Cups and saucers, etc.	.....	In red, blue or gold.
Cups and saucers, etc.	.....	In blue, red or gold.
Vases, cups and saucers, etc.	.....	Underglaze blue.
Vases, cups and saucers, etc.	.....	In blue underglaze.
Figures, table ware.	Without "Grease spots."	Seldom marked.
Figures, vases and table ware, ornaments, scent bottles, etc.	"Grease spots" pronounced.	In red, brown or gold.
Figures, vases and table ware, ornaments, scent bottles, etc. Table ware, etc.	"Grease spots" small.	The initial D, usually in gold.
Vases, table ware, etc.	"Grease spots small and not abundant.	Usually in blue beneath the glaze.
Cups and saucers, etc.	Usually in blue beneath the glaze.

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